APPENDIX D

Florida DER Permit

Appendix D contains a copy of the Florida DER Air Permit issued to Astrotech in 1989. In order to support the issuance of the permit, Astrotech commissioned a study by an independent consultant (see Section 7.1.2). In that study, emission rate estimates were made by reviewing processes at Astrotech and comparing them to operations at other facilities handling hydrazines (specifically the Olin anhydrous hydrazine manufacturing facility in Lake Charles, Louisiana). The scrubber efficiency (90%) as provided by the vendor (Tri-Mer Corporation) was also a component of the analysis. The resulting fugitive emissions estimates were then input to the Industrial Source Complex Short-Term dispersion model to project the maximum 8-hour ground level ambient concentrations for the materials of concern in the permit. The modeling results showed that the maximum ambient concentrations for all pollutants were below the DER's Acceptable Ambient Concentrations.

Supported by this analysis described, the Florida DER issued Astrotech a permit in November of 1989 that allows a maximum of 5,000 pounds of nitrogen tetroxide and 2,500 pounds of anhydrous hydrazine or monomethyl hydrazine. The permit also sets a monitoring schedule for yearly inspections of compliance with the permit conditions by a professional engineer, and requires that Florida DER be notified prior to these compliance inspections, so that they can also attend.